

CLAIMS PENDING IN THE APPLICATION

7. An apparatus for securing a grating sheet to structural members in a wave zone of an offshore platform, the grating sheet including an upper and lower surface, the apparatus comprising:

a top plate for mounting on the upper surface of the grating sheet, the top plate having a hole therein and upper and lower surfaces;

a bottom plate having an [slot] opening, the bottom plate being [sized and shaped for attaching] attached to the structural member in a laterally extending direction for supporting the grating sheet; and

[engaging means] a securing mechanism extending between the upper surface of the top plate and the bottom plate through the opening of the bottom plate for clamping the top plate and bottom plate together with the grating sheet, the securing mechanism configured to be secured only from a position on a top surface of the grating sheet in order to secure the grating sheet to the structural members so as to prevent displacement of the grating sheet from the structural members by extreme wave action, the grating sheet being attached to structural members in a wave zone area of an offshore platform;

wherein said apparatus is formed of corrosion resistant material and said apparatus is configured [is able] to withstand the forces of waves in [a] the wave-zone portion of [an] the offshore platform area.

8. The apparatus of claim 7, wherein the engaging means is a bolt member shaped and sized for extending through the hole in the top plate and slot opening in the bottom plate for engagement with a threaded nut, the bolt member including a threaded portion for mating with the threaded nut.

9. The apparatus of claim 7, wherein the bottom plate has upper and lower surfaces with a channel secured to the lower surface of the bottom plate and aligned with the slot opening of the bottom plate.

10. The apparatus of claim 9, wherein the channel is sized and shaped for housing a movable engaging means.

11. The apparatus of claim 10, wherein the movable engaging means is a threaded nut that mates with a threaded portion of a bolt member.

12. The apparatus of claim 7, further comprising a cylindrical standoff secured to the lower surface of the top plate for placement between adjacent grating bars, the standoff having a bore and an opening sized and shaped to receive a portion of a bolt member therethrough.

13. The apparatus of claim 7, wherein said corrosion resistant material is stainless steel.

[14. The apparatus of claim 7, wherein said grating sheet is a plurality of grating sheets used to form a floor for a walkway on an offshore platform and the structural members provide support for the walkway.]

[15. A fastening system for securing grating sheets having longitudinal edges comprised of parallel and transverse bars forming a pattern of openings to structural members of an offshore platform or other similar platform comprising:

elongated generally L-shaped connectors for fastening the longitudinal edges of grating sheets to structural members in a wave zone area of the platform;

plate fasteners including a top plate for mounting on an upper surface of the grating sheets, a bottom plate for attaching to the structural members in a laterally extending direction for supporting the grating sheets and engaging means for clamping the top and bottom plates together in order to secure the grating sheets to the structural members in a wave zone area of the platform;

whereby the elongated L-shaped connectors together with the plate fasteners provide fastening support for the grating sheets so as to resist vertical and horizontal wave pressures when secured to the supporting members;

wherein said system is formed of corrosion resistant material and is able to withstand the forces of waves in a wave-zone portion of an offshore platform.]

[16. The system of claim 15, wherein said corrosion resistant material is fiberglass.]

[17. The system of claim 15, wherein the corrosion resistant material is stainless steel.]

18. An apparatus for securing a grating sheet comprised of parallel and transverse bars forming a pattern of openings to structural members of an offshore platform or other similar platform, comprising;

a top plate for mounting on the upper surface of the grating sheet of an offshore platform, the top plate having an opening therein;

a bottom plate being attached to the structural support members of an offshore platform in a laterally extending direction for supporting the grating sheet on the structural support members; and a threaded member extending between the top and bottom plates and through the opening in the top plate for engagement with a threaded nut for attaching the top and bottom plates together with the grating sheet, the threaded member configured to be secured only from a top surface of the grating sheet of the platform in order to secure the grating sheets to the structural members in a wave zone area of the platform;

wherein said apparatus is formed of corrosion resistant material and said apparatus is configured to withstand the forces of waves in a the wave-zone portion of an offshore platform area.

19. The apparatus of claim 18, wherein the top and bottom plates are combined with elongated L-shaped connectors for providing fastening support for the grating sheets so as to resist vertical and horizontal wave pressures when secured to the supporting members.

20. The apparatus of claim 18, wherein the corrosion resistant material of the grating sheets is fiberglass.

21. The apparatus of claim 18, wherein said corrosion resistant material is stainless steel.